IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of   Attorney Docket Q64386

Miguel PEETERS

Appln. No.: Not Assigned   Group Art Unit: Not Assigned

Confirmation No.: Not Assigned   Examiner: Not Assigned

Filed: June 06, 2001

For: MULTI-CARRIER COMMUNICATION SYSTEM WITH SAMPLE RATE PILOT
        CARRIER AND TIME DIVISION DUPLEXING FRAME RATE PILOT CARRIER

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows:

IN THE SPECIFICATION:

Page 1, after the title, insert the heading:

Background of the Invention

Page 2, before the first full paragraph beginning with "An object" insert the heading:

Summary of the Invention

Page 5, before the fifth pull paragraph beginning with "The above mentioned" insert the

heading:

Brief Description of the Drawings

Page 6, before the second full paragraph beginning with "Fig. 1" insert the heading:

Detailed Description of the Invention

IN THE CLAIMS:

Please enter the following amended claims:

3.   (Amended)Multi-carrier communication system according to claim 1,

CHARACTERISED IN THAT said first pilot carrier and/or said second pilot carrier

are/is randomised.

4.   (Amended)Multi-carrier communication system according to claim 1,

CHARACTERISED IN THAT said first pilot carrier and/or said second pilot carrier

are/is modulated with data.

IN THE ABSTRACT:

Please delete the present Abstract of the Disclosure and replace it with the following

new Abstract of the Disclosure.

ABSTRACT

In a multi-carrier communication system wherein data are transferred bi-directionally in a time division duplexed way, a first pilot carrier is used to transfer a sample rate between two transceivers (VDSL_LT, VDSL_NT) and a second pilot carrier is used to transfer a time division duplexing frame rate between the two transceivers (VDSL_LT, VDSL_NT). The first pilot carrier has an instantaneous frequency that is a fraction of the sample rate of the first transceiver (VDSL_LT) and is orthogonal to other carriers used in the multi-carrier communication system. The second pilot carrier has a mean frequency that is a fraction of the time division duplexing frame rate and is also orthogonal to the other carriers used in the multi-carrier communication system. The second pilot carrier is different from the first pilot carrier.
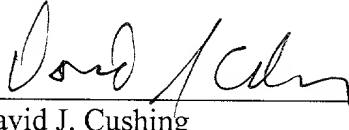
REMARKS

Entry and consideration of this Amendment is respectfully requested.

Respectfully submitted,

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Date: June 6, 2001

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The specification is changed as follows:

Page 1, after the title, insert the heading:

Background of the Invention

Page 2, before the first full paragraph beginning with "An object" insert the heading:

Summary of the Invention

Page 5, before the fifth pull paragraph beginning with "The above mentioned" insert the heading:

Brief Description of the Drawings

Page 6, before the second full paragraph beginning with "Fig. 1" insert the heading:

Detailed Description of the Invention

IN THE CLAIMS:

The claims are amended as follows:

3.   (Amended) Multi-carrier communication system according to claim 1 ~~or claim 2~~,

CHARACTERISED IN THAT said first pilot carrier and/or said second pilot carrier

are/is randomised.

4.   (Amended)Multi-carrier communication system according to claim 1 ~~or claim 2~~,

CHARACTERISED IN THAT said first pilot carrier and/or said second pilot carrier

are/is modulated with data.

IN THE ABSTRACT OF DISCLOSURE:

The abstract is changed as follows:

ABSTRACT

~~MULTI-CARRIER COMMUNICATION SYSTEM WITH SAMPLE RATE PILOT CARRIER AND TIME DIVISION DUPLEXING FRAME RATE PILOT CARRIER~~

In a multi-carrier communication system wherein data are transferred bi-directionally in a time division duplexed way, a first pilot carrier is used to transfer a sample rate between two transceivers (VDSL_LT, VDSL_NT) and a second pilot carrier is used to transfer a time division duplexing frame rate between the two transceivers (VDSL_LT, VDSL_NT). The first pilot carrier has an instantaneous frequency that is a fraction of the sample rate of the first transceiver (VDSL_LT) and is orthogonal to other carriers used in the multi-carrier communication system. The second pilot carrier has a mean frequency that is a fraction of the time division duplexing frame rate and is also orthogonal to the other carriers used in the multi-carrier communication system. The second pilot carrier is different from the first pilot carrier.